Spatial Cognition 2008
Preliminary Program

7. August 2008
Monday, Sep 15, 2008

Tutorial T-2 (9:00 – 13:00)
Alexander Klippel (Penn Sate U, USA). *Behavioral Similarity Measures for Spatial Cognition*

Tutorial T-3 (9:00 – 13:00)
Marco Ragni (U of Freiburg, D). *Qualitative Spatial and Temporal Reasoning: Formal Aspects and Cognitive Theories*

*** Lunch Break

Tutorial T-1 (14:00 – 18:00)
Kenneth D. Forbus (Northwestern U, USA). *Exploring Spatial Cognition through Sketch Understanding*

Industrial Tutorial IT-1 (14:00 – 18:00)
Niels Krabisch (ESRI Geoinformatik GmbH, D). *Visualization and Spatial Statistics with ArcGIS*

Workshop WS-2 (14:00 – 18:00)
Marco Ragni (U of Freiburg, D), Holger Schultheis (U of Bremen, D), and Thomas Barkowsky (U of Bremen, D). *Cognitive and Computational Models of Human Spatial Reasoning*

Welcome Reception (19:00)

*** Dinner
Tuesday, Sep 16, 2008

Keynote Lecture (8:30 – 9:30)
Heinrich H. Bülthoff (MPI for Biological Cybernetics, D): TBA.

Spatial Orientation (9:30 – 10:30)
Marios Avraamides and Stephanie Pantelidou: Does body orientation matter when reasoning about depicted or described scenes?
Jonathan Kelly and Timothy P. McNamara: Spatial memory and spatial orientation.

Spatial Navigation (11:00 – 13:00)
Louis-Emmanuel Martinet, Jean-Baptiste Passot, Benjamin Fouque, Jean-Arcady Meyer, and Angelo Arleo: Map-based spatial navigation: A cortical column model for action planning.
Thomas Reineking, Christian Kohlhagen, and Christoph Zetzsche: Efficient wayfinding in hierarchically regionalized spatial environments.
Laurent Dollé, Mehdi Khamassi, Benoît Girard, Agnès Guillot, and Ricardo Chavarriaga: Analyzing interactions between navigation strategies using a computational model of action selection.
Lorenz Gerstmayr, Hanspeter Mallot, and Jan Wiener: A minimalistic model of visually guided obstacle avoidance and path selection behavior.

Spatial Learning (14:30 – 16:00)
Rebecca Hurlebaus, Kai Basten, Hanspeter A. Mallot, and Jan M. Wiener: Route learning strategies in a virtual cluttered environment.
Nicholas Giudice and Jerome Tietz: Learning with virtual verbal displays: Effects of interface fidelity on cognitive map development.

Maps & Modalities (16:30 – 18:00)
Kai-Florian Richter, Denise Peters, Gregory Kuhnmünch, and Falko Schmid: What do focus maps focus on?
Lynn S. Liben, Lauren J. Myers, and Kim A. Kastens: Locating oneself on a map in relation to person qualities and map characteristics.
Madeleine Keehner: Conflicting cues from vision and touch can impair spatial task performance: Speculations on the role of spatial ability in reconciling frames of reference.

Poster Session (20:00 – 21:30)
Wednesday, Sep 17, 2008

Keynote Lecture (8:30 – 9:30)

Laura Carlson (U of Notre Dame, USA): *On the “whats” and “hows” of “where”: The role of salience in spatial descriptions.*

Spatial Communication (9:30 – 10:30)

Kim Kastens, Lynn S. Liben, and Shruti Agrawal: *Epistemic actions in science education.*

Michael Barclay and Antony Galton: *An influence model for reference object selection in spatially locative phrases.*

*** Coffee Break

Spatial Language (11:00 – 13:00)

Robert Ross: *Tiered models of spatial language interpretation.*

Juliana Goschler, Elena Andonova, and Robert Ross: *Perspective use and perspective shift in spatial dialogue.*

Joana Hois and Oliver Kutz: *Natural language meets spatial calculi.*

Kate Lockwood, Andrew Lovett, and Kenneth Forbus: *Automatic classification of containment and support spatial relations in English and Dutch.*

Excursion & Conference Dinner (14:00)

Excursion & Conference Dinner
Thursday, Sep 18, 2008

**Keynote Lecture (8:30 – 9:30)**
Dedre Gentner (Northwestern U, USA): *Learning about space.*

**Similarity & Abstraction (9:30 – 10:30)**
Konstantinos Nedas and Max Egenhofer: *Integral vs. separable attributes in spatial similarity assessments.*
Lutz Frommberger and Diedrich Wolter: *Spatial abstraction: Aspectualization, coarsening, and conceptual classification.*

*** Coffee Break

**Concepts & Reference Frames (11:00 – 13:00)**
Martin Raubal: *Representing concepts in time.*
Peter Kiefer: *Spatially constrained grammars for mobile intention recognition.*
Andrew Lovett, Kate Lockwood, and Kenneth Forbus: *Modeling cross-cultural performance on the visual oddity task.*

*** Lunch Break

**Spatial Modelling & Spatial Reasoning (14:30 – 16:00)**
Hannah Dee, Roberto Fraile, David C. Hogg, and Anthony Cohn: *Modelling scenes using the activity within them.*
Antony Galton: *Pareto-optimality of cognitively preferred polygonal hulls for dot patterns.*
Dominik Luecke, Till Mossakowski, and Diedrich Wolter: *Qualitative reasoning about convex relations.*

*** Coffee Break

**Panel discussion (16:30 – 18:00)**

*** Dinner

**Doctoral Colloquium I (20:00 – 21:30)**
Friday, Sep 19, 2008

Doctoral Colloquium II (9:00 – 10:30)

*** Coffee Break

Workshop WS-1 (11:00 – 13:00)
Alexander Klippel (Penn State U, USA) and Stephen Hirtle (U of Pittsburgh, PA, USA). *You-Are-Here-Maps: Creating a Sense of Place through Map-like Representations*

Workshop WS-3 (11:00 – 13:00)
Kenny Coventry (Northumbria U, UK) and Ronan O’Ceallaigh (Northumbria U, UK). *Spatial Language in Context: Computational and Theoretical Approaches to Situation Specific Meaning*

Workshop WS-4 (11:00 – 13:00)
Wolfgang Stürzl (U of Bielefeld, D) and Jan M. Wiener (U of Freiburg, D). *Biologically Motivated Models of Spatial Behaviour: Insights from Animals*

*** Lunch Break

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